The Royal College of Pathologists

Pathology: the science behind the cure

CURRICULUM FOR SPECIALTY TRAINING IN **HISTOPATHOLOGY**

AUGUST 2021

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1. Introduction

Cellular pathology diagnostic services underpin the practice of modern medicine across all specialties. The practice of cellular pathology is essentially one of examining patients' organs and tissues by eye (macroscopic examination), viewing samples at the cellular level by light (and sometimes electron) microscope, and undertaking additional studies to provide diagnostic and prognostic information or determine the cause of death. Whole slide scanning and digital pathology are increasingly being validated alongside or as a substitute for conventional light microscopy. Careful communication and discussion of findings with the multidisciplinary team, external agencies and the family (if appropriate) are key. Cellular pathologists' practice, particularly for cancer specimens, extends to informing treatment decisions, and this is expected to increase in light of rapid expansion of molecular diagnostics. The family of cellular pathology specialties encompasses histopathology, diagnostic neuropathology, paediatric and perinatal pathology and forensic histopathology.

Histopathology focuses on the largest number and widest variety of specimens, and has the largest workforce of the cellular pathology specialties. Histopathology is the study of all organs, tissues and cells outside the nervous system, in the context of the adult patient and their medical history, in order to provide a diagnosis. Additional skills, relating to immunohistochemistry and molecular genetics, are increasingly used to support diagnostics, offer prognostic information and guide therapeutic decisions.

Many histopathologists will develop a special interest in one particular organ system, developing higher diagnostic acumen. Histopathologists often report on fluid samples containing cells, in addition to tissue samples, as part of the spectrum of their diagnostic workload. The subspecialty of cytopathology relies on histopathologists developing additional skills in the cellular analysis of body fluids, both relating to cervical smears (cervical cytology) and elsewhere within the body (cytopathology). Cytology skills related to cervical cytology may be recognised by an additional certificate, achieved after a further three months of training and an associated exam. All histopathologists develop basic autopsy skills as trainees, but increasingly those called upon by the coroner (or procurator fiscal) to undertake autopsies have their higher skills certificated by the College. While not a subspecialty, this additional training avenue is an important optional component part of training.

2. Purpose

2.1 Purpose statement

The purpose of the curriculum is to set the standards for attainment of the award of the Certificate of Completion of Training (CCT) or Certificate of Eligibility for Specialist Registration (CESR) via the Combined Programme (CP) in histopathology and to ensure that trainees are fully prepared to work within a histopathology service at consultant level in the National Health Service (NHS).

Trainees in the four cellular pathology specialties will initially enter a period of integrated cellular pathology training (ICPT). This will include common fundamental learning according to the generic capabilities in practice (CiPs) and specialty competencies detailed below. All trainees will undertake short periods of training across the four specialties, along with basic autopsy training, cytopathology training and training in molecular pathology. It is anticipated that they will undertake the Fellowship Examination of the Royal College of Pathologists (FRCPath) Part 1 between months 12 and 24 (full-time equivalent). This will include an evaluation of aptitude for cellular pathology, underpinned by a comprehensive portfolio.

After two years of ICPT, trainees will either decide to continue in histopathology specialty training (and declare whether they wish to undertake higher autopsy training pre-CCT) or apply for training in one of the three other cellular pathology specialties through a national recruitment process. This higher specialty training commences from 2.5 years and will require the accrual of more specialised and in-depth generic and specialty competencies underlying the CiPs. These CiPs are described in generic terms for the four specialties and listed later. Higher specialty training in histopathology is anticipated to require an indicative 2.5 years of training, with higher autopsy and cervical cytology training each comprising a further three months. It is anticipated that histopathology trainees will attempt the FRCPath Part 2 examination in histopathology in their penultimate year of training, followed by approximately 6–12 months of experiential learning to further develop their abilities as independent practitioners. They will be expected to pass the FRCPath Part 2 at least six months prior to their CCT date.

This purpose statement has been endorsed by the General Medical Council's (GMC) Curriculum Oversight Group and confirmed as meeting the needs of the health services of the countries of the UK.

2.2 High-level curriculum outcomes: capabilities in practice

The 11 CiPs describe the professional tasks or work within the scope of histopathology. Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the minimum level of knowledge, skills and attitudes which should be demonstrated for an entrustment decision to be made. By the completion of training and award of the CCT, the doctor must demonstrate that they are capable of unsupervised practice in all generic and specialty CiPs.

The seven generic CiPs cover the universal requirements of all specialties as described in the generic professional capabilities (GPC) framework. Assessment of the generic CiPs will be underpinned by the GPC descriptors. Satisfactory sign-off will indicate that there are no concerns before the trainee can progress to the next part of the assessment of clinical capabilities.

The four specialty CiPs describe the laboratory and clinical tasks or activities which are essential to the practice of histopathology. The specialty CiPs have also been mapped to the GPC domains and subsections to reflect the generic professional capabilities required to undertake the clinical tasks. Satisfactory sign-off requires demonstration that, for each of the CiPs, the trainee's performance meets or exceeds the minimum expected level of performance expected for completion of that year of histopathology training, as defined in the curriculum.

Table 1: The seven generic and four specialty capabilities in practice

Learning outcomes – CiPs
Generic CiPs
1. Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care. 2. Able to work within ethical and legal frameworks across all aspects of clinical practice. 3. Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement. 4. Maintains patient safety at the forefront of clinical working. Can utilise quality

improvement activity realistically within the constraints of the role.
5. Able to contribute to and support research.
6. Behaves as an educator in the context of the role and promotes educational culture.
7. Able to self-appraise, learn and adapt.

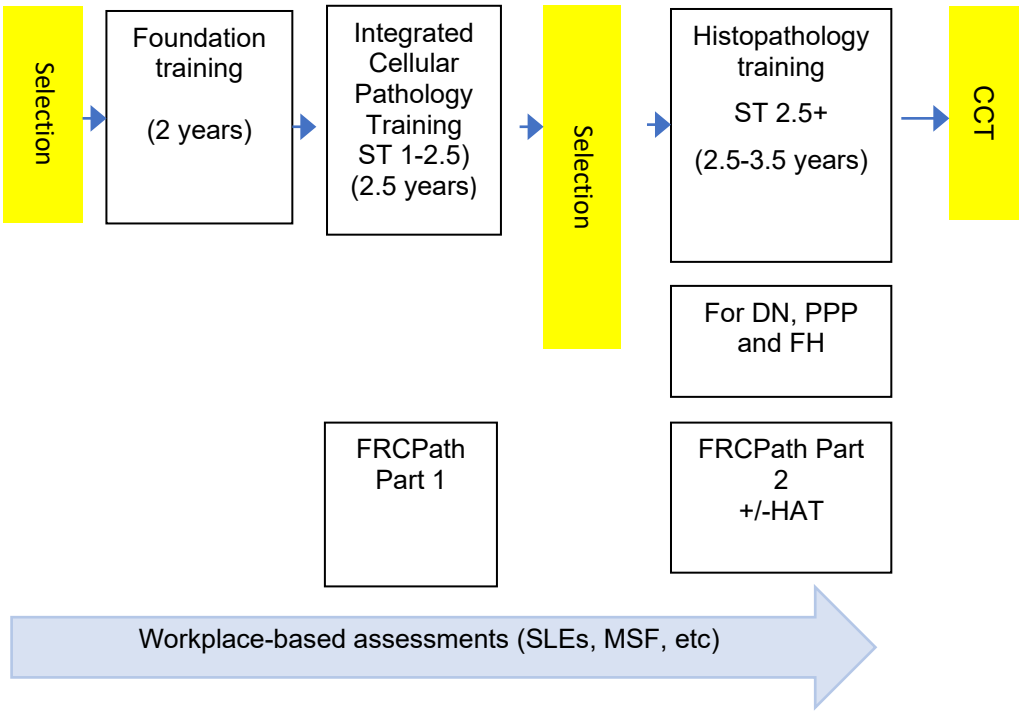
Specialty CiPs

8. Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care.
9. Able to use laboratory and other services effectively in the investigation, diagnosis, and management of patients, relatives, and the deceased.
10. Able to manage and contribute to a multidisciplinary team effectively.
11. Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others.

2.3 Training pathway

Trainees in the specialty will initially develop knowledge of laboratory work, including the analysis and sampling of organs and microscopic analysis of samples including immunohistochemistry and molecular analysis. Following completion of the FRCPath Part 1 examination (typically after 18 months of training), they will continue to develop their skills in histopathology, with greater responsibility, less direct supervision, and increasing experience with independent reporting of suitable specimens. After passing the FRCPath Part 2 examination, trainees will continue to take graded responsibility further, to enable the transition to independent practice required of a CCT holder.

Figure 1. Structure of training in Histopathology.



On completion of the histopathology training programme, the trainee must have acquired and be able to demonstrate:

- professional behaviour appropriate to being able to work as a consultant
- good working relationships with colleagues, and the appropriate communication skills required for the practice of histopathology

- the knowledge, skills and attitudes to act in a professional manner at all times
- the knowledge, skills and behaviours to provide appropriate teaching and to participate in effective research to underpin histopathology practice
- an understanding of the context, meaning and implementation of clinical governance
- a knowledge of the structure and organisation of the NHS
- management skills required for the running of a histopathology laboratory
- familiarity with health and safety regulations, as applied to the work of a histopathology department.

2.4 Duration of training

The Royal College of Pathologists anticipates that five years would normally be required to satisfactorily complete the histopathology curriculum to the required depth and breadth, including 2.5 years of the ICPT and 2.5 years of histopathology training as described below to achieve a CCT or CESR (CP).

The CCT or CESR (CP) in histopathology will be awarded on the recommendation of the Royal College of Pathologists following evidence of:

- satisfactory completion of the histopathology curriculum
- satisfactory outcomes in the recommended number of supervised learning events (SLEs), including multi-source feedback
- FRCPath by examination
- acquisition of Annual Review of Competence Progression (ARCP) outcome 6.

2.5 Flexibility

Histopathology training offers excellent opportunities to contribute to research and service development across the whole field of medicine, as well as providing opportunities for training in other related specialties, and in a range of settings as outlined above. GPCs will promote flexibility in postgraduate training, as these common capabilities can be transferred from specialty to specialty.

2.6 Less than full-time training

Less than full-time training is the term used to describe training on a basis that is not full-time – normally between five and eight sessions per week. In exceptional circumstances, trainees may be allowed to undertake training at less than 50% of full time. These circumstances should be considered by the trainee's deanery and should have the support of the postgraduate dean or their deputy. A placement at less than 50% of full time should be for a maximum of 12 months and should be subject to regular review.

The aim of less than full-time training is to provide opportunities for doctors in the NHS who are unable to work full-time. Doctors can apply for less than full-time training if they can provide evidence that 'training on a full-time basis would not be practicable for well-founded individual reasons'.

Less than full-time trainees must accept two important principles:

- less than full-time training shall meet the same requirements (in depth and breadth) as full-time training
- the total duration and quality of less than full-time training must be not less than those of a full-time trainee.

In other words, a less than full-time trainee will have to complete the minimum training time for their specialty pro rata.

Prior to beginning their less than full-time training, trainees must inform the Training Department at the Royal College of Pathologists in order that the Histopathology College Specialty Training Committee (CSTC) can ensure that their less than full-time training programme will comply with the requirements of the CCT. The documentation towards a less than full-time training application will be collected and checked to ensure compliance and a revised provisional CCT date issued. It must also be ensured that the less than full-time training post is approved as part of a GMC-approved training programme. Separate guidance and an application form are available on the College website for this purpose.

2.7 Generic professional capabilities and good medical practice

The GMC has developed the GPC framework with the Academy of Medical Royal Colleges (AoMRC) to describe the fundamental, career-long, generic capabilities required of every doctor. The framework describes the requirement to develop and maintain key professional values and behaviours, knowledge and skills, using a common language. GPCs also represent a system-wide, regulatory response to the most common contemporary concerns about patient safety and fitness to practise within the medical profession. The framework will be relevant at all stages of medical education, training and practice.

Figure 2: The nine domains of generic professional capabilities

Good medical practice (GMP) is embedded at the heart of the GPC framework. In describing the principles, duties and responsibilities of doctors, the GPC framework articulates GMP as a series of achievable educational outcomes which will inform curriculum design and assessment.

The GPC framework describes nine domains with associated descriptors outlining the 'minimum common regulatory requirement' of performance and professional behaviour for those completing a CCT or its equivalent. These attributes are common, baseline and generic standards expected of all medical practitioners achieving a CCT or its equivalent.

The 20 domains and subsections of the GPC framework are directly identifiable in the histopathology curriculum. They are mapped to each of the generic and specialty CiPs, which are in turn mapped to the syllabus and to the assessment blueprints. This is to emphasise those core professional capabilities that are essential to safe clinical practice and that must be demonstrated at every stage of training as part of the holistic development of responsible professionals.

This approach will allow early detection of the issues most likely to be associated with fitness to practise and aims to minimise the possibility that any deficit is identified during the final phases of training.

3. Learning and teaching

3.1 The training programme

This section of the curriculum outlines the training regulations for histopathology. In line with GMC guidance, this reflects the regulation that only training that has been prospectively approved by the GMC can lead towards the award of the CCT. Training that has not been prospectively approved by the GMC can still be considered, but the trainee's route of entry to the Specialist Register changes to the CESR (CP) route.

The organisation and delivery of postgraduate training is the responsibility of Health Education England (HEE) and its Local Education and Training Boards (LETBs), NHS Education for Scotland (NES), the Wales Deanery and the Northern Ireland Medical & Dental Training Agency (NIMDTA). The training programme director will be responsible for coordinating the histopathology training programme. In England, the local organisation and delivery of training is typically overseen by a school of pathology within a LETB.

Progression through the programme will be determined by the ARCP process and the training requirements for each indicative year of training are summarised in the histopathology ARCP decision aid (available on the College website). The successful completion of the programme will be dependent on achieving the expected minimum level in all CiPs and GPCs. The programme of assessment will be used to monitor and determine progress through the training programme. Training will normally take place in a range of district general hospitals and teaching hospitals.

The sequence of training should ensure appropriate progression in experience and responsibility. The training to be provided at each training site is defined to ensure that, during the programme, the entire syllabus is covered, and also that unnecessary duplication and educationally unrewarding experiences are avoided. However, the sequence of training should ideally be flexible enough to allow the trainee to develop a special interest.

3.2 Entry requirements

Trainees are eligible for entry to a histopathology training programme following satisfactory completion of a UK foundation training programme or equivalent. Entry is also possible following post-foundation clinical training. Information regarding entry to ST1 training in England and Wales is available from the NHS Histopathology Training Schools. Scottish and Northern Irish ST1 trainees do not enter specific training schools, but the programme is otherwise identical.

3.3 Teaching and learning methods

Models of learning

There are three broad categories of learning which trainees employ throughout run-through training: the instructionist model, the constructionist model and the social learning model. The models of learning can be applied to any year of training in varying degrees. Most of the curriculum will be delivered through work-based experiential learning, but the environment within the department should encourage independent self-directed learning and make opportunities for relevant off-the-job education by making provision for attendance at local, national and, where appropriate, international meetings and courses. Independent self-directed learning should be encouraged by, for example, making use of the e-learning tool or providing reference textbooks. It is the trainee's responsibility to seek opportunities for experiential learning.

The rotations are also arranged in such a way that trainees have time available for participation in research projects as part of their training. The more academically inclined trainees will be encouraged to take time out from their training time to include a more sustained period of grant-funded research, working towards an MSc, MRes/MD or PhD.

Learning for knowledge, competence, performance and independent action will be achieved by assessment and graded responsibility for reporting, allowing trainees at various levels of training to acquire responsibility for independent reporting. Assessments will be set by the Royal College of Pathologists in the form of workplace-based assessment, including multi-source feedback and the FRCPath examination.

The principles of Bloom's taxonomy have been applied to the knowledge, skills and behaviours outlined in the curriculum, to indicate the trainees' learning journey from the initial acquisition of knowledge and comprehension through to application and analysis, and resulting in the synthesis and evaluation required to achieve mastery in the specialty of histopathology. In using this model, it is acknowledged that there are many different versions of the taxonomy. The achievement of mastery in this curriculum requires the trainee to demonstrate a combination of detailed knowledge in the associated political context, with the ability to do independent clinical work, and to lead and organise services.

Learning experiences

The following teaching/learning methods will be used to identify how individual objectives will be achieved:

- **Routine work:** the most important learning experience will be day-to-day work. Histopathology trainees are amongst the most closely supervised groups in postgraduate medical training. This close supervision allows frequent short episodes of teaching, which may hardly be recognised as such by trainees.
- **Textbooks and online resources:** Histopathology departments have a wide range of reference texts available. These allow trainees to 'read around' routine cases that they are reporting. Histopathology is a subject requiring a great deal of background learning and reading, as well as the practical experience gained within day-to-day working, and trainees should take every opportunity to 'read around' their subject.
- **Private study:** more systematic reading of textbooks and journals will be required in preparation for examinations.
- **'Black box' and other departmental teaching sessions:** these occur on a regular basis in most departments.
- **Regional training courses:** these are valuable learning opportunities. Trainees should be released from service duties to attend.
- **National training courses:** these are particularly helpful during preparation for the FRCPath Part 2 examination. In addition to providing specific teaching, they also allow trainees to identify their position in relation to the curriculum and their peers.
- **Scientific meetings:** research and the understanding of research are essential to the practice of histopathology. Trainees should be encouraged to attend and present their work at relevant meetings.
- **Discussion with biomedical scientists (BMS) staff:** BMS staff can provide excellent training, particularly in relation to laboratory methods, health and safety, service delivery, procurement and human resources.
- **Multidisciplinary team meetings (MDTs):** attendance at and contribution to MDTs and clinicopathological conferences is an integral part of histopathology practice and offers the opportunity for trainees to develop an understanding of clinical management and appreciate the impact of laboratory diagnosis on patient care. The MDT is also an important arena for the development of interprofessional communication skills.

- **Attachment to specialist departments:** attachments of this kind will be required if a training programme cannot offer the full range of specialist experience needed to complete the curriculum. They will also be beneficial for those trainees in their final year of training who wish to develop a special interest before taking up a consultant post.
- **E-learning**
- **Learning with peers**
- **Work-based experiential learning**
- **Medical clinics, including specialty clinics**
- **Practical laboratory experience**
- **Formal postgraduate teaching**
- **Independent self-directed learning**
- **Formal study**
- **Independent reporting**

It must be ensured that the appropriate teaching and learning methods are employed for each area of the curriculum.

3.4 Taking time out of programme (OOP)

There are a number of circumstances when a trainee may seek to spend some time out of the specialty training programme to which they have been appointed. These are outlined below. Further information can also be found in the reference guide for postgraduate specialty training in the UK.

Time out of training

The GMC has provided guidance on the management of absences from training and their effect on a trainee's CCT date. The GMC guidance states that within each 12-month period where a trainee has been absent for a total of 14 days or more (when a trainee would normally be at work), a review to determine if the trainee's CCT date should be extended is triggered. The absence includes all forms of absence such as sickness, maternity, paternity, and compassionate paid/unpaid leave, but does not include study or annual leave or prospectively approved out-of-programme training/research. The administration of the absence and any extension to training will be undertaken by the relevant deanery in consultation with the Royal College of Pathologists where necessary. The GMC supports the deaneries implementing this guidance flexibly to reflect the nature and timing of the absence, and its effect on the individual's competence. Each trainee's circumstances will be considered on an individual basis and any changes to the CCT date will reflect the trainee's demonstration of competence.

Acting up as a consultant (AUC)

A doctor in training can apply to the postgraduate dean to take time out of programme and credit the time towards the CCT/CESR (CP) as an AUC. This will normally be for a period of three months (pro rata for less than full-time trainees). Where the AUC is in the same training programme, then prospective approval is not needed from the GMC. If it is a different training programme, the usual out-of-programme (OOP) process applies. When trainees are acting up as a consultant, appropriate supervision must be in place and approval will only be considered if the acting up placement is relevant to gaining the competences, knowledge, skills and behaviours required by the curriculum. AUC posts can only be taken in the final year of specialty training.

Out-of-programme research (OOPR)

Some trainees may wish to spend a period of time in research after entering histopathology training, as out-of-programme research (OOPR).

- **Research undertaken prior to entry to a histopathology training programme**
  Trainees who have undertaken a period of research prior to entering a histopathology training programme can apply to have this period recognised towards a CCT or CESR (CP), if it includes clinical or laboratory work directly relevant to the histopathology curriculum and there is prospective approval from the GMC.

- **Research undertaken during a histopathology training programme**
  Trainees who undertake a period of OOPR after entering a histopathology training programme and obtaining their National Training Number (NTN) may have a period of research recognised towards the award of the CCT or CESR (CP). Trainees must ensure that their OOPR is approved prospectively before beginning their research, and that it includes clinical or laboratory work directly relevant to the histopathology curriculum, and they must demonstrate that they have achieved, or will be able to achieve, all requirements of the curriculum.

  Prior to beginning the period of research, trainees must agree the OOPR with their deanery and apply to the Training Department at the Royal College of Pathologists so that the Histopathology CSTC can ensure that the trainee will comply with the requirements of the CCT programme and issue a revised provisional CCT date if necessary. It must be ensured that, following deanery agreement and acceptance from the Histopathology CSTC, the GMC prospectively approve the OOPR so that the period can count towards a CCT or CESR (CP).

  Separate guidance and an application form are available on the College website for this purpose.

Academic training

Trainees who intend to pursue a career in academic or research medicine may undertake specialist training in histopathology. Such trainees will normally be clinical lecturers and hold an academic NTN (NTN(A)). It is expected that such trainees should complete the requirements of the histopathology curriculum in addition to their academic work. However, the content of their training, while meeting the requirements of the curriculum, will have to take into account their need to develop their research and the provisional CCT date should be amended accordingly. NTN(A) holders in histopathology should consult the Training Department at the College on an individual basis with regard to the agreement of their provisional CCT date.

Out-of-programme training (OOPT)

The GMC must prospectively approve clinical training out of programme if it is to be used towards a CCT or CESR (CP) award. This could include posts inside or outside the UK that are not already part of a GMC-approved programme in the same specialty. Further approval from the GMC is not required if the OOPT is already part of a GMC-approved programme in the same specialty.

Trainees can have up to one year of OOPT recognised towards the award of the CCT. Prior to beginning the period of OOPT, trainees must agree the OOPT with their deanery and inform the Training Department at the Royal College of Pathologists that they will be undertaking OOPT so that the Histopathology CSTC can ensure that the trainee will comply with the requirements of the CCT programme.

The postgraduate dean is required to submit an application for prospective GMC approval for any OOP that is to count towards a CCT or CESR (CP) on behalf of the trainee and this application is required to include support from the Royal College of Pathologists. If prospective approval for OOPT is not sought from the GMC, then it cannot count towards a

CCT or CESR (CP). Where the OOPT is in a GMC-approved programme in the same specialty, an application for further GMC approval is not required.

Trainees must have their OOPT agreed by the relevant deanery, accepted by the Histopathology CSTC and approved by the GMC before beginning it.

Separate guidance and an application form are available on the College website for this purpose.

Out-of-programme clinical experience (OOPE)
Trainees may seek agreement for OOPE to undertake clinical experience that has not been approved by the GMC and that will not contribute to award of a CCT or CESR (CP). In these circumstances, it is likely that the CCT date will need to be extended. During their histopathology training, some trainees may wish to spend a period of training in a related clinical specialty such as paediatrics or oncology. This is acceptable and should be undertaken as OOPE. However, such a period of training – although useful to the individual trainee in broadening their understanding of the relationship between histopathology and the clinical specialties – will not be accepted by the Histopathology CSTC towards the requirements of the CCT.

4. Quality management

The curriculum outlines the minimum histopathology training requirements for delivery in a training programme. It guides educational supervisors (ES) as to what is required to deliver the curriculum, and trainees in the learning and assessment methods required for satisfactory completion of training.

It is the responsibility of the training programme director (TPD) and their deanery, with the assistance of the regional STC to ensure that the programme delivers the depth and breadth of histopathology training outlined in the curriculum. The TPD must ensure that each post within the programme is approved by the GMC. Heads of Pathology School (HOPS) have a strategic overview of training in the Pathology specialties. They are responsible for ensuring that the delivery of education and training meets the College's and the GMC's agreed curriculum and is provided to the standards set by the College and the GMC.

It is the responsibility of the GMC to provide quality assurance for training programmes, and the responsibility of the Royal College of Pathologists through the Histopathology CSTC to ensure training programmes across the UK are able to deliver a balanced programme of training.

It is the responsibility of the College to monitor the quality of our curricula and assessments, and there are several means by which we achieve this, including but not limited to: having curricula and assessment systems as a standing item on the agenda of respective CSTC meetings, thereby allowing Heads of Schools, TPDs and trainee representatives to raise issues and make suggestions for change; seeking feedback from trainees as part of Trainee Advisory Committee meetings; and issuing an annual report to the GMC detailing exam results and analysing any findings which may arise.

It is the responsibility of the educational supervisor of a particular post or attachment within a programme to ensure that the training delivered in their post meets the requirements of the relevant section(s) of the curriculum. The educational supervisor must undertake regular educational appraisals with their trainee, at the beginning, middle and end of a section of training, to ensure structured and goal-oriented delivery of training.

Trainees must register with the College on appointment to a histopathology training programme. It is the trainee's responsibility to become familiar with the curriculum, inclusive of the generic and specialty CiPs, and assessment requirements both for the satisfactory completion of each year of training and for the award of the CCT or CESR (CP). They must be familiar with all aspects of the assessment system; supervised learning events (SLEs) including multi-source feedback (MSF) and the FRCPath examination. It is the trainee's responsibility to ensure that they undertake SLEs on a regular basis and that they apply in good time for the FRCPath examinations. Trainees must also make appropriate use of the electronic portfolio – the learning environment for pathology trainees (LEPT) system.

5. Intended use of curriculum by trainers and trainees

This curriculum and the ARCP decision aid are available from the Royal College of Pathologists website at www.rcpath.org.

Clinical and educational supervisors should use the curriculum and decision aid as the basis of their discussion with trainees, particularly during the appraisal process. Both trainers and trainees are expected to have a good knowledge of the curriculum and should use it as a guide for their training programme.

The four cellular pathology specialties have elected to use a learning map to describe learning and trainee activity according to CiP descriptors for each year of training, noting that the descriptors are the same for ICPT as for higher specialty training, and also that they are the same across the four cellular pathology higher specialty training curricula. This provides a level of detail of training relating to activity, and supplements the detail around content of learning outlined in the areas of learning documentation and detailed in the syllabi. It allows a trainee to identify where they are at any point in training and how they need to grow in order to progress and to evidence this using their training portfolio. It also allows for the educational supervisor to establish at what level a trainee is performing, and for constructive conversation and planning where a difference of opinion may exist.

The map is spiral in nature, in that year one activity is not replaced in subsequent years but built upon. We recognise that trainees, in line with GMP, will work within their own level of expertise, seeking advice and supervision from those around them as appropriate. This is integral to the learning map – all activities should be considered as occurring with appropriate supervision. The level of supervision for different years of training is dependent on the strengths and weaknesses of the trainee, and the complexity of the case in hand. Broadly speaking, the level of supervision anticipated is similar to that adopted in clinical specialties and is described in terms of entrustable professional activities (EPA) for the specialty CiPs.

For example, considering the first descriptor in CiP 11: 'management of a macroscopic specimen' – a second year ICPT trainee will be able to 'extend the approach (of a first year trainee) to cover common specimens submitted and modify according to best practice guidelines'. They will tend to undertake this at EPA level 2. A third year histopathology trainee will be able to 'apply ICPT-derived learning to a histopathology context' at entrustment level 3. Similarly, a third year diagnostic neuropathology trainee will be able to do the same in a neuropathology context, 'paying new attention to imaging findings and common neuropathological conditions', also at entrustment level 3.

Each trainee will engage with the curriculum by maintaining an ePortfolio. This is the learning environment for pathology trainees (LEPT) system, which captures trainees' progress during training. It records SLEs including multi-source feedback (MSF) and there is a functionality to support the ARCP process. The trainee will use the curriculum to develop learning objectives and reflect on learning experiences.

It is the trainees' responsibility to ensure their LEPT ePortfolio is kept up to date, arrange assessments and ensure they are recorded, prepare drafts of appraisal forms, maintain their personal development plan, record their reflections on learning and record their progress through the curriculum.

Clinical supervisors and others contributing to assessment will provide formative feedback to the trainee on their performance throughout the training year. This feedback will include a global rating, in order to indicate to the trainee and their educational supervisor how they are progressing in a particular year of training.

The educational supervisor's main responsibilities are to use LEPT evidence such as outcomes of assessments, reflections and personal development plans to inform appraisal meetings, to update the trainee's record of progress through the curriculum, to write end-of-attachment appraisals, and to report on the trainee's progress to the training programme director. This report will include an assessment of the trainee's progress against generic and specialty CiPs.

Deaneries, training programme directors and ARCP panels may use the LEPT system to monitor the progress of trainees for whom they are responsible.

All appraisal meetings, personal development plans and SLEs (including MSF assessments) should be recorded in the LEPT system. Trainees are encouraged to reflect on their learning experiences and to record these reflections in the LEPT system. Reflections can be kept private or shared with supervisors.

Reflections, assessments and other LEPT content should be used to provide evidence towards acquisition of curriculum capabilities. Trainees should add their own self-assessment ratings to record their view of their progress. The aims of the self-assessment are to:

- provide the means for reflection and the evaluation of current practice
- inform discussions with supervisors to help both gain insight and assist in developing personal development plans
- identify shortcomings between experience, competency and areas defined in the curriculum, so as to guide future clinical exposure and learning.

6. Equality and diversity

The following is an extract from the Royal College of Pathologists' diversity and equality policy and approach. A full copy of the policy is available on the College website.

The Royal College of Pathologists is committed to the principle of diversity and equality in employment, membership, academic activities, examinations and training. As part of this commitment we are concerned to inspire and support all those who work with us directly and indirectly.

Integral to our approach is the emphasis we place on our belief that everyone should be treated in a fair, open and honest manner. Our approach is a comprehensive one and reflects all areas of diversity, recognising the value of each individual. We aim to ensure that no one is treated less favourably than another on the grounds of sex, race, age, sexual orientation, gender reassignment, disability, pregnancy and maternity, religion and belief and marriage and civil partnership. Our intention is to reflect not only the letter but also the spirit of equality legislation.

Our policy will take account of current equality legislation and good practice as outlined in the Equality Act 2010 which supersedes/includes all previous legislation.

The Training Department collects information about the gender and ethnicity of trainees as part of their registration with the College. Further information about the monitoring activities of the College trainees, candidates and Fellows are available in the College policy.

7. Content of learning

7.1 Capabilities in practice

CiPs describe the professional tasks or work within the scope of histopathology. CiPs are based on the format of entrustable professional activities, which are methods of using the professional judgement of appropriately trained, expert assessors as a key aspect of the validity of assessment and a defensible way of forming global judgements of professional performance.

Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the minimum level of knowledge, skills and attitudes which should be demonstrated by histopathologists. Trainees may use these capabilities to provide evidence of how their performance meets or exceeds the minimum expected level of performance for their year of training.

Specialty CiPs emphasise the need to demonstrate professional behaviour with regard to patients, carers, colleagues and others. Good doctors work in partnership with patients and respect their rights to privacy and dignity. They treat each patient as an individual. They do their best to make sure all patients receive good care and treatment that will support them to live as well as possible, whatever their illness or disability. Appropriate professional behaviour should reflect the principles of GMP and GPC.

In order to complete training and be recommended to the GMC for the award of CCT and entry to the Specialist Register, the doctor must demonstrate that they are capable of unsupervised practice in all generic and specialty CiPs.

The histopathology curriculum centres on a learning map (appendices A and B) that describes the appropriate level of capability for each CiP descriptor at each ARCP decision point. Learning is additive and spiral in nature; in this way the capabilities described are additive year on year rather than alternative. The portfolio provides evidence of the level of attainment of each of these descriptors, in order to help the adult learner identify areas for development, and the educational supervisor and ARCP panel reach a balanced decision. The decision taken at ARCP will include a judgement of the evidenced position of the trainee on the learning map according to their year of training.

Satisfactory sign-off at the end of histopathology training requires demonstration that, for each of the CiPs, the trainee’s performance meets or exceeds the minimum expected level of performance expected for completion of that year of training.

This section of the curriculum details the 11 generic and specialty CiPs for histopathology with expected levels of performance, mapping to relevant GPCs and the evidence that may be used to make an entrustment decision.

7.1.1 Generic capabilities in practice

The seven generic CiPs cover the universal requirements of all specialties as described in GMP and the GPC framework. Assessment of the generic CiPs will be underpinned by the descriptors for the nine GPC domains and evidenced against the performance and behaviour expected at that level of training. Satisfactory sign-off will indicate that there are no concerns before the trainee can progress to the next part of the assessment of clinical capabilities. It will not be necessary to assign a level of supervision for these non-clinical CiPs.

In order to ensure consistency and transferability, the generic CiPs have been grouped under the GMP-aligned categories used in the foundation programme curriculum plus an additional category for wider professional practice:

- professional behaviour and trust
- communication, teamworking and leadership
- safety and quality
- wider professional practice.

For each generic CiP, there is a set of descriptors of the observable skills and behaviours which would demonstrate that a trainee has met the minimum level expected.

Table 2: Generic capabilities in practice (CiPs) and descriptors

Histopathology generic CiPs	
Category 1: Professional behaviour and trust	
1. Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care.	
Descriptors	• Demonstrates awareness of and adherence to the GMC professional requirements • Demonstrates recognition of public health issues including population health, social detriments of health and global health perspectives • Practises promotion of an open and transparent culture • Demonstrates engagement in career planning • Demonstrates capabilities in dealing with complexity and uncertainty
GPCs	Domain 1: Professional knowledge Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 9: Capabilities in research and scholarship
Evidence to inform decision	Portfolio FRCPath Parts 1 and 2 CHAT and CHCCT as appropriate

2. Able to work within ethical and legal frameworks across all aspects of clinical practice.	
Descriptors	• Demonstrates awareness of national legislation and legal responsibilities, including safeguarding vulnerable groups • Demonstrates behaviour in accordance with ethical and legal requirements • Demonstrates ability to offer apology or explanation when appropriate • Demonstrates ability to advise clinicians and other health professionals on medico-legal issues related to pathology, cognisant of national variations in practice

GPCs	Domain 1: Professional knowledge Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 7: Capabilities in safeguarding vulnerable groups Domain 8: Capabilities in education and training Domain 9: Capabilities in research and scholarship
Evidence to inform decision	Workplace-based assessments FRCPath Part 2 CHAT as appropriate

Category 2: Communication, teamworking and leadership	
3. Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement.	
Descriptors	• Demonstrates effective communication with patients, next of kin, colleagues and members of the multidisciplinary team as appropriate • Identifies and manages barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues, cultural issues) • Demonstrates effective consultation skills including effective verbal and nonverbal interpersonal skills • Demonstrates effective management and team working skills appropriately, including influencing, negotiating, re-assessing priorities and effectively managing complex, dynamic situations
GPCs	Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty • Clinical acumen and awareness of clinical skills (such as: history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease) • The health service and healthcare systems in the four countries Domain 5: Capabilities in leadership and team working
Evidence to inform decision	Portfolio FRCPath Parts 1 and 2 CHAT and CHCCT as appropriate

Category 3: Safety and quality	
4. Maintains patient safety at the forefront of clinical working, can utilise quality improvement activity realistically within the constraints of the role.	
Descriptors	• Raises and escalates concerns where there is an issue with patient safety or quality of care • Contributes to and delivers quality improvement • Identifies basic human factors principles and practice at individual, team, organisational and system levels • Recognises the importance of non-technical skills and crisis resource management • Recognises and works within limit of personal competence
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty • Clinical acumen and awareness of clinical skills (such as: history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease) Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement • Patient safety • Quality improvement
Evidence to inform decision	Portfolio FRCPath Parts 1 and 2 CHAT and CHCCT as appropriate

Category 4: Wider professional practice	
5. Able to contribute to and support research.	
Descriptors	• Demonstrates appropriate research and academic writing • Demonstrates ability to follow legal and ethical frameworks underlying research in the UK, particularly tissue-based research, and demonstrates ability to follow these guidelines • Supports the health service research of others, including exploring funding opportunities • Demonstrates ability to carry out critical appraisal of the literature
GPCs	Domain 1: Professional knowledge Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 7: Capabilities in safeguarding vulnerable groups Domain 9: Capabilities in research and scholarship
Evidence to inform decision	Portfolio FRCPath Parts 1 and 2 CHAT as appropriate

6. Behaves as an educator in the context of the role and promotes educational culture.	
Descriptors	• Demonstrates effective teaching, training and supervision to peers, medical students, junior doctors, laboratory staff and others as appropriate • Demonstrates ability to deliver effective feedback to trainees, with appropriate action plan
GPCs	Domain 1: Professional knowledge Domain 8: Capabilities in education and training
Evidence to inform decision	Portfolio

7. Able to self-appraise, learn and adapt.	
Descriptors	• Able to apply reflective learning strategies to aid learning and improve performance • Demonstrates ability to apply knowledge and adapt to new clinical situations • Demonstrates ability to adapt and work effectively with different teams, departments, professional groups and external agencies
GPCs	Domain 1: Professional knowledge

	Domain 3: Professional values and behaviours Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement
Evidence to inform decision	Portfolio FRCPath Parts 1 and 2 CHAT as appropriate

7.1.2 Specialty capabilities in practice

The four specialty CiPs describe the tasks or activities which are essential to the practice of the cellular pathology specialties. These CiPs have been mapped to the nine GPC domains to reflect the generic professional capabilities required to undertake these tasks.

Table 3: Specialty capabilities in practice (CiPs) for cellular pathology and their descriptors

Histopathology specialty CiPs	
8. Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care.	
Descriptors	• Describes and explains the structure, resources and legislation surrounding laboratory practice • Demonstrates awareness of developments, both scientific and managerial, that may affect the organisation and delivery of Pathology services (e.g. commissioning) • Demonstrates ability to write a business case and draw upon the expertise and opinions of others in this process • Demonstrates understanding of method validation • Demonstrates ability to effectively use internal quality control and external quality assurance information to diagnose and resolve analytical problems
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups
Evidence to inform decision	Portfolio CHCCT as appropriate

9. Able to use laboratory and other services effectively in the investigation, diagnosis, and management of patients, relatives, and the deceased.	
Descriptors	• Describes and explains Laboratory Information Management Systems and other healthcare IT systems, including understanding the legislation surrounding information governance • Effectively liaises with specialty services and requests appropriate investigations • Can interpret reports from related clinical disciplines in the light of pathology findings, mindful of the pitfalls of interpretation • Describes and explains reasoning behind investigational and diagnostic advice clearly to clinicians, laboratory staff, legal professionals and lay persons
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty Domain 3: Professional values and behaviours Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and teamworking Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups
Evidence to inform decision	Portfolio FRCPath Parts 1 and 2 CHAT and CHCCT as appropriate

10. Able to manage and contribute to a multi-disciplinary team effectively.	
Descriptors	• Demonstrates effective management and team working skills, including influencing, negotiating, continually re-assessing priorities and effectively managing complex, dynamic situations • Identifies and supports effective continuity and coordination of patient care through the appropriate transfer of information • Recognises the importance of prompt and accurate information sharing with the team primarily responsible for the care of the patient • Able to work effectively with outside agencies such as HM Coroner, COPFS, GMC, Charitable organisations and regional, national and international research / diagnostic networks • Able to integrate the results in order to advise an MDT and able to provide prognostic information
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty • Clinical acumen and awareness of clinical skills (such as: history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection

	control and communicable disease) Domain 3: Professional values and behaviours Domain 5: Capabilities in leadership and teamworking
Evidence to inform decision	Portfolio FRCPath Parts 1 and 2 CHAT and CHCCT as appropriate

11. Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others.	
Descriptors	• Able to interpret a macroscopic specimen in anatomical terms accurately, for diagnostic, prognostic and therapeutic purposes • Able to identify and interpret microscopic features (including additional techniques) in order to provide an accurate surgical pathology report to inform the multidisciplinary team for diagnostic and prognostic purposes • Able to perform a post-mortem examination of a type usually encountered in clinical practice, in order to inform the Coroner, Procurator Fiscal hospital team, family and others appropriately • Able to interpret all macroscopic and microscopic findings identified from the post-mortem examination in order to evaluate and identify disease processes, and their likely biological and or clinical significance • Able to portray an appropriate amount of certainty around a pathological diagnosis so as to influence the multidisciplinary team accordingly • Able to provide a timely accurate report in clear and appropriate language, in written and spoken form • Able to use appropriate published guidelines and diagnostic coding as required • Able to provide a provisional verbal report urgently, according to clinical need, and document appropriately (e.g. for intraoperative pathology) • Able to counsel next of kin and peer health professionals on the outcomes of pathology investigations and post-mortem examinations. • Demonstrate the ability to report independently
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty • Clinical acumen and awareness of clinical skills (such as: history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease) Domain 3: Professional values and behaviours Domain 6: Capabilities in Patient Safety and Quality Improvement Domain 7: Capabilities in safeguarding vulnerable groups
Evidence	Portfolio

to inform decision	FRCPath Parts 1 and 2 CHAT and CHCCT as appropriate

7.2 Syllabus

The scope of histopathology is broad. Any attempt to list all relevant methods, presentations, conditions and issues would be extensive but would inevitably be incomplete and would rapidly become out of date.

The table below details the key areas of histopathology. These are described in more detail in the appended syllabus. Each of these areas should be regarded as a context in which trainees should be able to demonstrate CiPs and GPCs. Trainees will need to become familiar with the relevant knowledge, skills and values/attitudes related to these areas. The patient should always be at the centre of knowledge, learning and care.

The level of knowledge gained within each of the areas described below will vary between trainees. However, for each disease process listed, it is recommended that the trainee possesses at least a basic level of knowledge within the following eight categories:

- epidemiology
- aetiology
- pathogenesis
- clinical features
- pathological features (macroscopic and microscopic)
- natural history
- management options
- major complications of therapy.

Syllabus overview for ICPT:

- deeper understanding of undergraduate medical pathology, pathological basis of disease and anatomy
- macroscopic and microscopic appearance of disease processes in organs, samples of tissues and cellular specimens, across all organ systems
- the autopsy process
- the role of the history and associated clinical information in interpreting pathological findings
- evolving ways of working: digital pathology and molecular pathology
- report production: quality aspects, writing, recording and working with IT systems
- laboratory organisation, accreditation and management
- generic skills relating to health and safety, legal and ethical frameworks, education and supporting research
- general principles of working in the cellular pathology smaller specialties.

Syllabus overview for histopathology higher specialty training:

- working with systems-specific members of the MDT
- pathology relating to all the adult organ systems, excluding the nervous system.

During the ICPT component of the training, all trainees are expected to undertake training in the basic knowledge and skills of cellular pathology. This includes surgical pathology, basic autopsy, cytopathology and molecular pathology. The trainee should also acquire the generic skills required for cellular pathology, in accordance with GMP. In addition, trainees are expected to have some exposure to forensic pathology, neuropathology and paediatric pathology as part of their ICPT.

It is important that sufficient basic knowledge of major pathological processes is gained at this early stage. This should include topics such as: causes of and responses to cellular injury, acute and chronic inflammation, neoplasia, the effects of genetics and the environment in health and disease, infections and the basics of immunology.

After completion of the ICPT, the trainees will commence higher specialty training from 2.5 years. This training period will require the accrual of more specialised and in-depth generic and specialty competencies underlying the CiPs. These will within most of the areas listed above, excluding neuropathology, paediatric perinatal pathology and forensic pathology, which comprise their own higher specialty training programmes. Histopathology trainees will also have the option to undertake higher cervical cytopathology and/or higher autopsy pathology training if they so wish. Their CCT date will need to be adjusted to take into account the above preferences.

8. Programme of assessment

8.1 Purpose of assessment

The Royal College of Pathologists' mission is to promote excellence in the practice of pathology and to be responsible for maintaining standards through training, assessments, examinations and professional development. The RCPath assessment strategy contains further information, but the programme of assessment will reassure the public, professions, and other relevant bodies that the trainee is fit for purpose and ready to be a consultant by:

- providing relevant feedback and support to the trainee about their progress and learning needs
- ensuring fairness for all candidates regardless of their background
- driving learning demonstrated through the acquisition of knowledge and skill
- supporting trainees to progress at their own pace by measuring their capacity to achieve competencies for their chosen career path
- indicating the capability and potential of a trainee through tests of applied knowledge and skill relevant to the specialty
- demonstrating readiness to progress to the next year or stage of training having met the required standard of the previous stage
- enabling the trainee to collect all necessary evidence for the ARCP
- gaining Fellowship of The Royal College of Pathologists (FRCPath)
- providing evidence for the award of the CCT.

A blueprint of the histopathology assessment system, mapped to each CiP descriptor and thus GMP can be viewed at appendix D.

8.2 Programme of assessment

Our programme of assessment refers to the integrated framework of exams, assessments in the workplace and judgements made about a trainee during their approved programme of training. The purpose of the programme of assessment is to robustly evidence, ensure and clearly communicate the expected levels of performance at critical progression points, and to demonstrate satisfactory completion of training as required by the curriculum.

The programme of assessment comprises several different individual types of assessment. These include the FRCPath examination, and summative and formative assessments. A range of assessments is needed to generate the necessary evidence required for global judgements to be made about satisfactory performance, progression, and completion of training. All assessments, including those conducted in the workplace, are linked to the

relevant curricular learning outcomes (e.g. through the blueprinting of the assessment system to the stated curricular outcomes).

The programme of assessment emphasises the importance and centrality of professional judgement in making sure learners have met the learning outcomes and expected levels of performance set out in the approved curricula. Assessors will make accountable, professional judgements. The programme of assessment includes how professional judgements are used and collated to support decisions on progression and satisfactory completion of training.

The assessments will be supported by structured feedback for trainees. Assessment tools will be both formative and summative and have been selected on the basis of their fitness for purpose.

Assessment will take place throughout the training programme, to allow trainees to continually gather evidence of learning and to provide formative feedback. Those assessment tools which are not identified individually as summative will contribute to summative judgements about a trainee's progress as part of the programme of assessment. The number and range of these will ensure a reliable assessment of the training relevant to their stage of training and will achieve coverage of the curriculum.

Reflection and feedback should be an integral component to all assessments, particularly those within the portfolio. In order for trainees to maximise benefit, reflection and feedback should take place as soon as possible after an event. Every clinical encounter can provide a unique opportunity for reflection and feedback and this process should occur frequently. Feedback should be of high quality and should include an action plan for future development for the trainee. Both trainees and trainers should recognise and respect cultural differences when giving and receiving feedback.

8.3 Assessment of CiPs

Assessment of CiPs and their individual descriptors involves looking across a range of different skills and behaviours to make global decisions (as described in the learning map) about a trainee's suitability to take on particular responsibilities or tasks. The map provides a framework for the trainee to evidence their capabilities and identify opportunities for improvement through the year. It also aids the decision taken at the ARCP, on the basis of evidence, regarding progression.

Clinical supervisors and others contributing to assessment will provide formative feedback to the trainee on their performance throughout the training year. This feedback will include a global rating, in order to indicate to the trainee and their educational supervisor how they are progressing at that stage of training. To support this, workplace-based assessments in the form of SLEs will include global assessment anchor statements.

For optimum reliability, assessments should be undertaken by as many different assessors as possible. Trainees are encouraged to include assessments from a broad range of consultants and senior staff.

Global assessment anchor statements

A trainee's agreed position at a point in time across the learning maps, in the context of the associated entrustment levels, should be reviewed for each CiP and a decision should be taken at ARCP regarding how the trainee is performing globally.

Recognising that learning is not linear, judgement should be used in determining the global assessment anchor statement for each CiP at ARCP. For example, considering CiP 10 for a fourth year histopathology trainee: the trainee may not quite perform all five listed descriptors as for 37–48 FTE months of training at entrustment level 3. One may be more advanced than this or at a higher entrustment level (or the reverse), but if the dominant picture is that they are meeting expectations for this year of training, then that global assessment anchor statement should be employed. The anchor statements are as follows:

- below expectations for this year of training; may not meet the requirements for critical progression point
- meeting expectations for this year of training; expected to progress to next stage of training
- above expectations for this year of training; expected to progress to next stage of training.

Towards the end of the training year, trainees will make a self-assessment of their progression for each CiP and record this in the LEPT system with signposting to the evidence to support their rating.

The educational supervisor will review the evidence in the LEPT system, including SLEs and the trainee's self-assessment, and record their judgement on the trainee's performance in the ES report, with commentary.

For generic and specialty CiPs, the ES will indicate whether the trainee is meeting expectations or not, using the learning maps below.

Entrustability scales are behaviourally anchored ordinal scales based on progression to competence and reflect a judgement that has clinical meaning for assessors. These should be used alongside the learning map to inform the assessment of the trainee's overall performance. An outline grid of levels expected for histopathology specialty CiPs can be viewed in Appendix C.

Table 4: Level descriptors for specialty CiPs

Level	Descriptor
Level 1	Entrusted to observe only – no provision of clinical care.
Level 2	Entrusted to act with direct supervision: The trainee may provide clinical care, but the supervising physician is physically within the hospital or other site of patient care and is immediately available if required to provide direct bedside supervision.
Level 3	Entrusted to act with indirect supervision: The trainee may provide clinical care when the supervising physician is not physically present within the hospital or other site of patient care, but is available by means of telephone and/or electronic media to provide advice, and can attend at the bedside if required to provide direct supervision.
Level 4	Entrusted to act unsupervised.

8.4 Critical progression points

There will be three key progression points during histopathology training. The first is on attainment of the FRCPath Part 1 by completion of ICPT, the second on attainment of the

FRCPath Part 2 in histopathology by 4.5 years, allowing a minimum of six months of experiential learning before the award of the CCT, which is the third key progression point.

It is anticipated that the majority of trainees entering histopathology will do so from foundation training.

8.5 Evidence of progress

Methods of assessment

Trainees will be assessed in a number of different ways during their training. Workplace-based assessment, in the form of SLEs, allows the trainee to be assessed at regular intervals in the workplace by an appropriately trained, qualified and experienced assessor. The MSF assessment, amongst other things, generates candid feedback on behaviour, attitude, communication and teamworking issues. The FRCPath examination provides an external, quality-assured assessment of the trainee's knowledge of their specialty and their ability to apply that knowledge in the practice of the specialty. Satisfactory completion of all assessments and examinations will be monitored as part of the ARCP process and will be one of the criteria upon which eligibility to progress will be judged. A pass in the FRCPath examination is required as part of the eligibility criteria for the award of the CCT or CESR (CP).

Supervised learning events (SLEs)

Trainees will be expected to undertake SLEs throughout their training in histopathology. In general, SLEs are designed to be formative in nature; as such they are best suited to determining educational progress in different contexts. To this end, it is strongly recommended that SLEs be carried out regularly throughout training to assess and document a trainee's progress. However, a minimum number of SLEs should be completed during each stage of training.

These will include:

- case-based discussion (CbD)
- direct observation of practical skills (DOPS)
- evaluation of clinical events (ECE)
- multi-source feedback (MSF)
- assessment of performance in the workplace (AOP).

Specific guidance for each stage and the optional packages of training is provided in appendix E.

Further separate guidance is provided about the method and required frequencies of these assessments.

FRCPath examination

The FRCPath Part 1 examination is the first formal assessment of cellular pathology knowledge and must be passed before the trainee can start specialist training in histopathology.

The expectation for medical candidates in UK GMC-approved training programmes is that they should normally pass the FRCPath Part 2 examination within seven years of passing the FRCPath Part 1. However, there will be circumstances where the guidelines will need to be applied flexibly. Candidates who feel that they will not be able to comply with this timescale should contact the RCPath Examinations Department for further advice.

Examination results are evaluated after each session and an annual review of validity and reliability is undertaken and reported to the Examinations Committee.

8.6 Evidence of competence

Annual Review of Competence Progression

The ARCP is an annual opportunity for evidence gathered by a trainee, relating to their progress in the training programme, to document the competencies that are being gained. Evidence of competence will be judged based on a portfolio of documentation, culminating in an educational supervisors' structured report.

Separate ARCP guidance is available on the College website. A copy of all ARCP forms issued to the trainee must be provided to the Royal College of Pathologists prior to recommendation for the award of the CCT. Lack of progress, identified by the issue of an ARCP outcome 3 or 5 and necessitating repeat training to rectify deficiencies, will lead to the extension of training. Training leading to the issue of an ARCP outcome 3 or 5 and necessitating repeat training will not be recognised towards the award of the CCT. Evidence of ARCP outcome 6 is required as part of the evidence for the award of the CCT.

8.7 Decisions on progress

The decisions made at critical progression points and upon completion of training should be clear and defensible. They must be fair and robust and make use of evidence from a range of assessments, potentially including exams and observations in practice or reflection on behaviour by those who have appropriate expertise or experience. They can also incorporate commentary or reports from longitudinal observations, such as from supervisors or formative assessments demonstrating progress over time.

Periodic (at least annual) review should be used to collate and systematically review evidence about a doctor's performance and progress in a holistic way and to make decisions about their progression in training. The ARCP process supports the collation and integration of evidence to make decisions about the achievement of expected outcomes.

Assessment of CiPs involves looking across a range of different skills and behaviours to make global decisions about a learner's suitability to take on particular responsibilities or tasks, as do decisions about the satisfactory completion of presentations/conditions and procedural skills set out in this curriculum. Table 4 in section 8.3 sets out the level of supervision expected for each of the specialty CiPs. The requirements for each year of training are set out in the ARCP decision aid.

The ARCP process is described in The Gold Guide. LETBs/deaneries are responsible for organising and conducting ARCPs. The evidence to be reviewed by ARCP panels should be collected in the LEPT system.

In order to guide trainees, supervisors and the ARCP panel, the College has produced an ARCP decision aid, which sets out the requirements for a satisfactory ARCP outcome at the end of each training year and at each critical progression point. The ARCP decision aid is available on the College website.

8.8 Assessment blueprint

Appendix D shows the possible methods of assessment for each CiP. It is not expected that every method will be used for each competency and additional evidence may be used to help make a judgement on capability.

8.9 Supervision and feedback

Specialty training must be appropriately delivered by the senior medical and scientific staff on a day-to-day basis under the direction of a designated educational supervisor and a Specialty Training Committee that links to the appropriate postgraduate deanery.

Educational supervision is a fundamental method for delivering teaching and training in the NHS. It takes advantage of the experience, knowledge and skills of educational supervisors/trainers and their familiarity with clinical situations. It ensures interaction between an experienced clinician and a doctor in training. This is the desired link between the past and the future of medical practice, to guide and steer the learning process of the trainee. Clinical supervision is also vital to ensure patient safety and the high-quality service of doctors in training.

The College expects all doctors reaching the end of their training to demonstrate competence in clinical supervision before the award of the CCT. The College also acknowledges that the process of gaining competence in supervision starts at an early stage in training, with foundation doctors supervising medical students and specialty registrars supervising more junior trainees. The example provided by the educational supervisor is the most powerful influence upon the standards of conduct and practice of a trainee.

The role of the educational supervisor is to:

- have overall educational and supervisory responsibility for the trainee in a given post
- ensure that the trainee is familiar with the curriculum relevant to the year/stage of training of the post
- ensure that the trainee has day-to-day supervision appropriate to their stage of training
- ensure that the trainee is making the necessary clinical and educational progress during the post
- ensure that the trainee is aware of the assessment system and undertakes it according to requirements
- act as a mentor to the trainee and help with both professional and personal development
- agree a training plan (formal educational contract) with the trainee and ensure that an induction (where appropriate) has been carried out soon after the trainee's appointment
- discuss the trainee's progress with each trainer with whom a trainee spends a period of training
- undertake regular formative/supportive appraisals with the trainee (two per year, approximately every six months) and ensure that both parties agree to the outcome of these sessions and keep a written record
- regularly inspect the trainee's training record, inform trainees of their progress and encourage trainees to discuss any deficiencies in the training programme, ensuring that records of such discussions are kept
- keep the STC chair informed of any significant problems that may affect the individual's training.

In order to become an educational supervisor, a consultant must have a demonstrated interest in teaching and training, have appropriate access to teaching resources, be involved in and liaise with the appropriate regional training committees and be involved in annual reviews and liaise closely with the TPD. The deaneries organise extensive training programmes for the development of educational supervisors. Educational supervisors must keep up to date with developments in postgraduate medical training (e.g. by attending deanery and national training the trainer courses), have access to the support and advice of

their senior colleagues regarding any issues related to teaching and training, and keep up to date with their own professional development.

9. Curriculum review and updating

The curriculum will be evaluated and monitored by the Royal College of Pathologists as part of continuous feedback from STCs, TPDs, trainers and trainees.

The curriculum will be formally reviewed in the first instance by the Cellular Pathology Curriculum Working Group within 2 years of publication. In reviewing the curriculum, opinions will be sought from the College's Cellular Pathology SAC, the Trainees Advisory Committee, the Lay Governance Group and its Fellows and Registered Trainees.

Any significant changes to the curriculum will need the approval of the Royal College of Pathologists' Council and the GMC.

10. Transitional arrangements

With the exception of trainees in the final year of training prior to the award of the CCT, all histopathology trainees will transfer to this curriculum.

Trainees in the final year of training will remain on their current curriculum. Such trainees would normally be expected to have already achieved FRCPath Part 2 by examination.

11. Acknowledgements:

Professor Nicki Cohen (Clinical Director of Training and Assessment), Dr Clair Evans (Chair Cellular Pathology College Specialty Training Committee, Chair Cellular Pathology Curriculum Working Group, Curriculum Lead Specialty Advisory Committee Pre/Perinatal/Paediatric Pathology), Dr Vipul Foria (Consultant Histopathologist, Cellular Pathology Curriculum Working Group), Dr Monika Hofer (Consultant Neuropathologist, Cellular Pathology Curriculum Working Group, Education Lead Specialty Advisory Committee Neuropathology), Dr Nigel Cooper (Consultant Forensic Pathologist, Chair Specialty Advisory Committee Forensic Pathology, Cellular Pathology Curriculum Working Group),Dr Catherine Horsfield (Consultant Histopathologist, Cellular Pathology Curriculum Working Group), Dr Nick West (Consultant Histopathologist and Molecular Pathologist), Dr Stephen Dahill (Consultant Histopathologist), Professor Peter Johnston (Consultant Histopathologist, Vice President RCPath), Dr Daniel Brierley (Consultant Oral Pathology), Dr Martin Young (Consultant Histopathologist and Cytopathologist), Dr Sanjiv Manek (Consultant Histopathologist, Director of Examinations), Joanne Brinklow (Director of Learning RCPath), Sandra Dewar-Creighton (Assessment Manager RCPath), Jenny Maginley (Training Manager RCPath) and Laura Mauro (Training Officer RCPath).

Appendix A: Learning map for integrated cellular pathology training (ICPT)

Generic CiPs
CiP 1: Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Awareness of and adherence to GMC professional requirements	**Recognition of public health issues including population health, social determinants of health, and global health perspectives**	**Promotion of an open and transparent culture**	**Engagement in career planning**	**Ability to deal with complexity and uncertainty**
1–12	Practice follows GMC guidance Prepares training portfolio in a timely manner for ARCP	Aware of basic local, national and international population health demographics and national public health issues	Shares information freely and appropriately Engages in peer learning with emphasis on shared learning from mistakes	Understands the remit of the four cellular pathology specialties and what being a good pathologist entails Is positive about career choice Plans timing of exams	Recognises own limitations in practice Seeks advice and help Understands how pathology reports are worded in varied contexts
13–24	Adheres to GMC professional requirements	Can put general public health issues into a wider context based on up-to-date information and apply to clinical practice	Learns reflectively from own mistakes and those of others Takes an open approach regarding reporting errors	Engages with training opportunities Explores small specialty training opportunities Takes appropriate advice around sitting Part I FRCPath	Anticipates when a straightforward pathological diagnosis may not be appropriate Can seek an external opinion
25–30	Can reflect on and discuss professional requirements	Appraises relevant individual and public health using a range of available data	Promotes a positive, open and honest working environment	Begins to plan for further exams and to explore specialist practice Develops and plans SMART audit, research and education experience commensurate with interest	Takes a structured approach to assessing complex cases and writing reports to convey complexity, appropriate uncertainty and clinicopathological correlation

CiP 2: Able to work within ethical and legal frameworks across all aspects of clinical practice.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Awareness of national legislation and legal responsibilities, including safeguarding vulnerable groups	**Behaviour in accordance with ethical and legal requirements**	**Ability to offer an apology or explanation**	**Ability to advise clinicians and other health professionals on medico-legal issues, cognisant of national variations in practice**
1–12	Engages with departmental induction and completes local statutory and mandatory training schedules	Adheres to local and national ethical guidance and equality and diversity legislation	Is open and honest about gaps in knowledge and clinical practice	Aware of medico-legal issues related to pathology Seeks advice from seniors
13–24	Signposts and retrieves national/devolved legislation and legal responsibilities according to clinical or academic setting	Adheres to ethical and legal requirements in a proactive fashion and seeks out advice as required	Offers an apology or explanation when appropriate Is aware of the local NHS trust/health board policies for complaints Is aware of the role of medical indemnity	Can provide advice for most everyday scenarios and knows when to seek help Supports peers and junior trainees in giving advice in a range of contexts
25–30	Practises in accordance with national and devolved legal frameworks with respect to human tissue and post-mortems, consent, confidentiality and safeguarding of vulnerable groups	Can apply ethical and legal requirements to general and more specific scenarios	Supports and encourages junior trainees to be honest about mistakes and proactively offer an explanation or apology	Can provide appropriate advice in more complex situations with supervision (e.g. relating to the use of human tissue, coroners and procurator fiscal services)

CiP 3: Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviours and judgement.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Communication with patients, next of kin, colleagues and members of the multidisciplinary team as appropriate	**Management of barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues, cultural issues)**	**Verbal and nonverbal consultation skills**	**Management and teamworking skills including influencing, negotiating, re-assessing priorities and complex, dynamic situations**
1–12	Reflects on cases from MDTs, CPCs and patient or next of kin meetings Can discuss cases with peers and supervising consultant Can hand over cases with guidance from supervising consultant	Is aware of potential communication barriers between specialties and within diagnostic service Considers strategies to manage them	Communicates effectively with colleagues Observes consultation styles (verbal and non-verbal) in a variety of settings	Understands what effective management and teamworking skills look like in cellular-pathology-related specialties
13–24	Discusses and presents cases at MDT or CPC and reflects on the outcomes Attends patient or next of kin meetings as appropriate Can discuss and give clear handover of cases	Proactively identifies and manages barriers of communication	Develops own style of consulting bearing verbal and nonverbal factors in mind by using reflective practice strategies	Contributes to management and teamworking by continuing to develop skills including influencing, negotiating, re-assessing priorities and managing complex dynamic situations
25–30	Supports and encourages junior trainees in their endeavour to communicate effectively and in getting to know the multidisciplinary team	Supports others with recognising and managing barriers of communication	Actively seeks feedback on consultation style and continues to improve in response to feedback	Builds on knowledge and skills acquired Is able to reflect on experience and focus on personal development

CiP 4: Maintains patient safety at the forefront of clinical working. Can utilise quality improvement activity realistically within the constraints of the role.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Behaviour relating to patient safety and quality of care	**Contribution and delivery of quality improvement**	**Human factors principles and practice at individual, team, organisational and system levels**	**Non-technical skills and crisis resource management**	**Working within limit of personal competence**
1–12	Understands local pathways for incident reporting and risk management Understands patient safety and fitness-to-practice guidance	Observes how patient safety investigations and complaints are managed in pathology Understands quality assurance and improvement principles Is aware of national audits	Understands human factors in healthcare in terms of the interactions of individuals, the task and the workplace	Understands the different roles of those employed in the laboratory and wider (and non-) NHS environment	Understand the limits of own competence from the beginning of ICPT training
13–24	Has a comfortable routine approach to raising patient safety or quality issues respectfully and constructively	Contributes to audits and individual quality improvement activities as part of the team	Uses insights from human factors principles to inform daily practice	Develops own repertoire of non-technical skills and starts to offer solutions for management. Takes time to learn policy regarding critical and/or major incidents	Develops consistent and appropriate threshold for asking for help when unsure
25–30	Can support colleagues in raising and escalating patient safety or quality of care issues	Encourages and supports colleagues with quality improvement activities	Is an ambassador for considering human factors in clinical practice with colleagues	Encourages and supports colleagues in contributing to resource management and using non-technical skills to optimise time and resources	Encourages colleagues to ask for help when required and is approachable within the personal limits of their competence

CiP 5: Able to contribute to and support research.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Principles of research and academic writing	**Ability to follow guidelines relating to legal and ethical frameworks in the UK**	**Support of health service research of others, including exploring funding opportunities**	**Critical appraisal of the literature**
1–12	Appreciates differences between audit, service review and research Can use digital resources to find suitable literature for diagnostic interpretation or targeted research questions	Understands the legal and ethical framework for research in UK pathology	Understands how health service research is structured and supported within the UK Explores available financial sources	Understands the basic principles of critical appraisal
13–24	Discusses and appraises relevant primary literature and reviews with colleagues	Can operate within the legal and ethical framework underlying research in everyday practice	Understands existing structures which support and facilitate health service research Gains an understanding of how research projects within the department are financed	Can critically review literature at a basic level to support diagnostic work
25–30	Demonstrates ability to write academic/research accounts appropriately	Identifies legal and ethical principles when planning/contributing to or advising on a research study	Can support colleagues in using the research frameworks when actively involved in research activities Can discuss and signpost to appropriate funding sources	Consults primary literature and reviews in the process of gaining knowledge and skills to further diagnostic ability

CiP 6: Behaves as an educator in the context of the role and promotes educational culture.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:	
	Teaching, training and supervision of peers, medical students, junior doctors, laboratory staff and others	**Effective feedback to colleagues**
1–12	Engages in departmental teaching and training opportunities including peer learning and observes a variety of teaching styles and settings	Observes how feedback is provided in a variety of settings, identifies what good feedback is Provides effective written feedback on teaching sessions
13–24	Develops own personal teaching style in a variety of different contexts	Develops own style for giving feedback in a variety of settings based on general principles from the literature and learning from past experience
25–30	Fine-tunes teaching and training skills, using educational literature and training opportunities	Can reflect and act upon constructive feedback Can reflect upon teaching and learning episodes Can tailor feedback in a variety of contexts

CiP 7: Able to self-appraise, learn and adapt.

Time (FTE months of training)	**Descriptor: Demonstrates or practises appropriate:**		
Time (FTE months of training)	**Reflective learning strategies to aid learning and improve performance**	**Application of knowledge to adapt to new clinical situations**	**Effective working with different teams, departments, professional groups and external agencies**
1–12	Grows and reflects upon pathology-related knowledge and understanding, given patient-facing expertise developed in foundation training	Applies pathology learning to basic cases and preparation of reports in relation to the clinical context	Engages with and contributes to teamwork
13–24	Consolidates a structured personal approach, allowing time for regular reflection to improve personal performance	Applies and adapts knowledge routinely in the work-up of a wide range of routine cases Can identify when clinical data is incomplete and when it should be sought	Routinely works with a range of different teams within and without the department, in a range of contexts
25–30	Applies guidance from national organisations to improve reflection and work constructively with others	Demonstrates deeper knowledge and understanding in less standard clinical scenarios	Demonstrates progression of skills relating to teamwork with a variety of colleagues

Specialty CiPs
CiP 8: Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Understanding of the structure, resources and legislation surrounding laboratory practice	**Awareness of scientific and managerial developments that may affect the organisation and delivery of pathology services**	**Writing a business case and draw upon the expertise and opinions of others in this process**	**Understanding of method validation**	**Using internal quality control and external quality assurance to maintain and enhance quality**
1–12	Demonstrates and explains basic understanding of histopathology laboratory structure and function	Understands their local laboratory setting in the context of national developments affecting delivery of pathology services	-	Demonstrates awareness of key principles of method validation (as per United Kingdom Accreditation Service requirements)	Demonstrates basic understanding of internal quality control and external quality assurance (EQA) mechanisms and relevant schemes
13–24	Understands legislation and international standards pertaining to the everyday function of cellular pathology laboratories	Understands wider health service strategic development relevant to cellular pathology specialties	Knows what a business case is, and its main purpose and basic structure	Explains how methods are routinely validated in the local laboratory and points to the appropriate local guidance	Uses internal quality control systems Reviews EQA circulations within the department and learns from EQA discussion meetings
25–30	Explains how individual healthcare laboratories operate within different hospital management structures	Keeps up to date with developments as they arise and anticipates what effect they may have on the organisation and delivery of pathology services	Has read and critically appraised a range of business cases in the department	Participates in the validation and verification of routine methods following the local laboratory protocol	Can use a structured approach to identify quality control issues in the laboratory setting

CiP 9: Able to use laboratory and other services effectively in the investigation, diagnosis, and management of patients, relatives, and the deceased.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Understanding of healthcare IT and laboratory information management systems and other healthcare IT systems, including associated legislation	**Communication with specialty services**	**Interpretation of reports from related clinical disciplines in the light of pathology findings, mindful of associated pitfalls**	**Reasoning behind investigational and diagnostic advice given to clinicians, laboratory staff, legal professionals and laypeople**
1–12	Basic understanding of laboratory information management systems, and how they link with wider IT and associated governance	Has a good basic understanding of the specialty services which work closely with cellular pathology and the range of investigations offered	Routinely reads reports from related clinical disciplines to make sense of their cases, and reflects on them in light of pathology results	Observes how investigational and diagnostic advice and explanation is given to clinicians and laboratory staff in a number of settings
13–24	Uses laboratory information management system in routine practice, mindful of information governance and legal requirements	Routinely requests appropriate investigations from other specialty services as part of daily practice and the work-up of routine cases	Explains findings of reports from related clinical disciplines and their relevance for a range of routine pathology cases	Has own style of routinely explaining the underlying reasons behind investigations to laboratory staff Provides clear reasons for investigational/diagnostic advice to clinicians as required
25–30	Can compare and contrast different systems and is able to discuss individual strengths and weaknesses	Can explore specialist testing for non-routine cases and get required tests organised	Can explore reports from related clinical disciplines in relation to the pathology observed in complex cases and formulate an integrated diagnostic opinion	Routinely discusses reasons behind investigations and diagnostic advice with clinicians as part of presenting the pathology at MDT meetings

CiP 10: Able to manage and contribute to a multidisciplinary team effectively.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Management and teamworking skills to effectively manage complex, dynamic situations	**Continuity and coordination of patient care through the appropriate transfer of information**	**Timely and accurate sharing of information with the clinical team responsible for the care of the patient**	**Working with outside agencies**	**Integration of clinical and pathological findings to advise an MDT and provide prognostic information**
1–12	Observes effective management and team working skills in cellular-pathology-related settings	Diligently includes all relevant information during basic reporting including clinical information Understands the focus on tissue interpretation Chases up reports as requested	Observes situations in pathology when prompt and accurate information-sharing with the clinical team is very important for patient management	Demonstrates basic awareness of outside agencies and their main roles in relation to pathology	Demonstrates awareness of the basic principles of integrating the results with all other relevant information in order provide advice and appropriate prognostic information at MDT
13–24	Contributes to management and teamworking by improving communication skills	Responds to requests for pathology information in a timely manner and chases up outstanding tests	Understands a range of situations where proactive, prompt and accurate information-sharing with the clinical team has a direct impact on patient care	Can explain the main roles of well-known outside organisations in relation to pathology	Can integrate results for straightforward cases in order to advise an MDT and provide appropriate prognostic information
25–30	Supports colleagues in developing and demonstrating effective management and teamworking skills	Identifies potential gaps in information transfer and helps to remedy them by working closely with the clinical and laboratory teams	Routinely identifies situations where prompt and accurate information-sharing is important and volunteers to carry this out	Interacts effectively with outside organisations	Can integrate results for a range of common routine cases with a view to providing advice and appropriate prognostic information at MDT

CiP 11: Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others. (a)

Time (FTE months of training)	**Descriptor: Demonstrates or practises skills to provide accurate diagnostic, prognostic and therapeutic detail, as appropriate:**				
	Management of a macroscopic specimen	**Microscopy skills (including additional techniques)**	**Performing a post-mortem examination**	**Interpreting all macroscopic and microscopic findings identified from the post-mortem**	**Portraying an appropriate amount of certainty around a pathological diagnosis**
1–12	Has a safe, structured approach to surgical cut-up: Can identify and describe anatomy, relevant features and sample so appropriate detail can extracted after full microscopy	Can identify key microscopic features and use to categorise disease processes in a structured manner Is comfortable and proficient undertaking microscopy Can request basic additional techniques	Undertakes a basic structured post-mortem exam safely and tidily, mindful of infection and sharps risk to self and others Recognises basic macroscopic findings that relate to a clinical history	Integrates macroscopic and microscopic findings and provides a basic opinion on underlying disease processes and their likely clinical significance Can interpret basic additional tests accurately	Observes senior colleagues presenting information with special emphasis on the expression of levels of certainty at MDTs
13–24	Extends the approach to cover common specimens submitted and modify according to best practice guidelines	Can extend this approach to cover a wide range of routine cases Can order additional investigations including molecular tests	Distinguishes between normal and abnormal in whole organ specimens and integrates with clinical information Anticipates potential findings based on history Understands the role of medical examiners in death certification	Can systematically summarise macroscopic and microscopic findings and integrate them with additional results including molecular tests to provide a more detailed diagnostic opinion in the context of the clinical history	Routinely attempts to gauge level of diagnostic certainty when working up cases
25–30	Can assess, interpret and sample more complex resection specimens using a structured approach	Adopts structured logical approach to the assessment of more complex cases Can order and explain basic methodology of all tests within NHS England's National	Interprets and questions findings in the appropriate context Understands when to ask for further information before starting Works with medical examiners of the cause of	Places relevant emphasis on significant and incidental findings Interprets findings from a prognostic and diagnostic perspective and recognises pitfalls of additional tests such as	Routinely presents pathology at MDT discussions and practises providing appropriate levels of certainty

		Genomic Test Directory	death, as appropriate	those within NHS England's National Genomic Test Directory	

CiP 11: Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others. (b)

Time (FTE months of training)	**Descriptor: Demonstrates or practises skills to provide accurate diagnostic, prognostic and therapeutic detail, as appropriate:**				
	Providing a timely accurate written or verbal report in clear and appropriate language	**Using appropriate published guidelines and diagnostic coding**	**Providing a provisional verbal report urgently and documenting appropriately**	**Counselling next of kin and peer health professionals on the outcomes of pathology investigations**	**Can report independently**
1–12	Can compose an accurate and complete surgical pathology report using best practice standards on common cases	Understands main published guidelines and diagnostic coding for routine pathology cases Can access and retrieve relevant further information quickly	Observes consultant colleagues providing verbal provisional reports urgently in a number of settings and recording appropriately Behaves accordingly and recognises the importance of urgent reporting	Observes senior colleagues counselling health professionals and patients as appropriate on the outcomes of pathology investigations	Has a basic structured logical approach to assessing macroscopic and microscopic findings Tries to reach independent conclusions prior to showing cases to consultant
13–24	Can routinely compose accurate and complete reports on a range of routine cellular pathology specimens containing all the required information using best practice standards	Routinely uses and seeks out appropriate guidelines when working up cases Routinely uses the appropriate diagnostic coding as per local guidelines	Can provide a provisional verbal report urgently for straightforward cases and can accurately document it	Has a basic approach towards counselling health professionals on the outcomes of pathology investigations for straightforward cases	Can start to independently report low complexity specimens (with appropriate local support) Routinely writes structured report with conclusions prior to showing case to consultant
25–30	Writes accurate understandable reports reflecting the appropriate level of complexity and giving balanced conclusions and advice	Can retrieve guidelines appropriate for rarer cases and apply appropriate diagnostic coding	Can provide a provisional verbal report urgently for a range of cases, with appropriate documentation	Routinely counsels health professionals on the outcome of pathology investigations	Continues to work up cases independently in preparation for extending independent reporting

Appendix B: Histopathology higher specialty training learning map

Generic CiPs
CiP 1: Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Awareness of and adherence to GMC professional requirements	**Recognition of public health issues including population health, social determinants of health, and global health perspectives**	**Promotion of an open and transparent culture**	**Engagement in career planning**	**Ability to deal with complexity and uncertainty**
31–36	Applies ICP-derived learning to a histopathology context	Understands the principles of national screening programmes and uses national guidelines in reporting histopathology specimens	Engages and promotes an open learning environment with both junior trainees and senior colleagues	Applies ICP-derived learning to gain in-depth knowledge and appreciation of what it is like as a consultant histopathologist.	Applies previous practice to histopathology Understands the importance of dealing with levels of certainty
37–48	Demonstrates growth compared to previous year	Can critically appraise public health issues and screening with relevance to histopathology specimens	Shares information and learning across relevant specialties, taking a multidisciplinary perspective	Plans appropriately for examinations Attends relevant courses and conferences	Approaches complex cases in a structured way Conveys appropriate levels of certainty, mindful of the context and potential impact on further management
49–60	Demonstrates growth compared to previous year	Participates in audits and service improvement projects in relation to national screening programmes.	Demonstrates growth compared to previous year	Demonstrates appropriate planning for future practice, increasing repertoire and areas of special interest	Demonstrates growth compared to previous year

CiP 2: Able to work within ethical and legal frameworks across all aspects of clinical practice.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Awareness of national legislation and legal responsibilities, including safeguarding vulnerable groups	**Behaviour in accordance with ethical and legal requirements**	**Ability to offer an apology or explanation**	**Ability to advise clinicians and other health professionals on medico-legal issues, cognisant of national variations in practice.**
31–36	Applies ICP-derived learning to a histopathology context	Demonstrates growth compared to previous year	Incorporates reflective practice in everyday work	Participates in departmental/laboratory meetings in relation to medico-legal factors
37–48	Demonstrates in-depth knowledge of the relevant legal frameworks, regulations and laws applicable to histopathology specimens	Demonstrates growth compared to previous year	Can critically analyse and establish the root cause of errors or incidents Is aware of and able to use the laboratory and Trust error/incident reporting systems	Can advise clinicians and health professionals on common medico-legal issues related to histopathology
49–60	Contributes to departmental discussions surrounding the application of appropriate regulation and legislation	Contributes to discussions and preparation or revision of departmental documents with regards to legal and ethical requirements	Can explain actions and rationale in complex scenarios where they may not necessarily be a right or wrong answer. Is willing to take ownership / responsibility	Demonstrates ability to lead discussions on individual aspects of medico-legal factors

CiP 3: Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviours and judgement.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Communication with patients, next of kin, colleagues and members of the multidisciplinary team as appropriate	**Management of barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues, cultural issues)**	**Verbal and nonverbal consultation skills**	**Management and teamworking skills including influencing, negotiating, re-assessing priorities, and complex, dynamic situations**
31–36	Applies ICP-derived learning to a histopathology context Attends and presents cases at multidisciplinary team meetings	Continues to look out for barriers of communication and manages them appropriately	Demonstrates growth compared to previous years and seeks feedback from colleagues and supervisors	Demonstrates growth compared to previous years Contributes to management and teamworking by using influencing and negotiating skills Can remain flexible in the context of complex dynamic situations Can prioritise work effectively
37–48	Routinely leads and presents cases at multidisciplinary team meetings Provides feedback to colleagues following MDT discussion	Considers proactively whether barriers of communication might be an issue and manages accordingly	Can reflect and seek feedback on consulting style Can provide effective feedback to others	Can contribute effectively to teamworking and case management in a variety of settings Can effectively prioritise casework and coordinate effectively with supervisors
49–60	Continues to lead and present cases at multidisciplinary team meetings Participates in site-specific cancer focus group meetings as appropriate	Considers potential barriers of communication when altering or designing new processes or protocols	Challenges self to positively develop consultation skills in more complex and challenging scenarios	Takes responsibility for managing complex situations in the context of teamworking

CiP 4: Maintains patient safety at the forefront of clinical working. Can utilise quality improvement activity realistically within the constraints of the role.

	Descriptor: Demonstrates or practises appropriate:				
Time (FTE months of training)	**Behaviour relating to patient safety and quality of care**	**Contribution and delivery of quality improvement**	**Human factors principles and practice at individual, team, organisational and system levels**	**Non-technical skills and crisis resource management**	**Working within limit of personal competence**
31–36	Applies ICP-derived learning to a histopathology context	Aware of role of national organisations in quality management Undertakes routine quality improvement activities	Applies ICP-derived learning to a histopathology context	Applies ICP-derived learning to a histopathology context	Shows open and modest approach to daily practice
37–48	Can raise/escalate patient safety and quality of care concerns following local guidelines in a respectful and constructive manner	Takes responsibility for a quality improvement activity in the department by engaging and working with the rest of the team	Effectively modifies approach to resolving issues and getting things done based on observed human factors principles	Demonstrates routine use of non-technical skills to optimise resources during daily practice	Carefully gauges personal competence as they progress with training and maintains a low threshold for seeking senior advice
49–60	Can contribute to patient safety or quality of care departmental discussions and clinical governance meetings Can reflect on approaches to resolve them	Complete cycle of audit activities undertaken Critically appraises the outcome of quality improvement activities	Can contribute and advise senior colleagues and the department on human factors, as requirements arise	Actively contributes to resource management at departmental level	Demonstrates growth compared to previous year Maintains ability to pause and reflect Demonstrates audit of clinic work

CiP 5: Able to contribute to and support research.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Principles of research and academic writing	**Ability to follow guidelines relating to legal and ethical frameworks in the UK**	**Support of health service research of others, including exploring funding opportunities**	**Critical appraisal of the literature**
31–36	Consults primary literature and reviews in the process of developing histopathology repertoire	Can apply legal and ethical framework relevant to research in the UK especially in relation to use of human tissue in research	Applies ICP-derived learning to a histopathology context	Applies ICP-derived learning to a histopathology context
37–48	Contributes to primary research/case reports	Demonstrates growth compared to previous year	Is able to advise colleagues on how histopathology can enhance their research and how to approach funding opportunities	Can critically appraise the literature in a particular subject area and is able to take ownership and present findings coherently
49–60	Can critically appraise primary research findings presented at meetings, and engages in academic writing	Contributes to or leads discussions on legal and ethical research aspects	Contributes to or leads health research funding applications	Contributes to local, departmental, national or international consultations/draft guidelines within histopathology

CiP 6: Behaves as an educator in the context of the role and promotes educational culture.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:	
	Teaching, training and supervision to peers, medical students, junior doctors, laboratory staff and others	**Effective feedback to colleagues**
31–36	Contributes to regular formal departmental teaching and training	Applies reflective practice on learning encounters in order to give effective feedback to others Able to give feedback to peers in a formal setting
37–48	Contributes to formal and informal teaching and learning of peers, medical students and other healthcare professionals	Able to receive and deliver effective feedback on more complex learning encounters
49–60	Can coordinate a variety of departmental teaching activities by planning appropriately and choosing the right format or style for the subject, audience and setting	Can deliver nuanced feedback relating to complex issues

CiP 7: Able to self-appraise, learn and adapt.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:		
	Reflective learning strategies to aid learning and improve performance	**Application of knowledge to adapt to new clinical situations**	**Effective working with different teams, departments, professional groups and external agencies**
31–36	Applies ICP-derived learning to a histopathology context. Reflects regularly, particularly after exposure to new areas of practice	Applies the skills learnt in ICP to histopathology and gains a basic understanding of the common clinical scenarios encountered	Applies the skills learnt in ICP to histopathology
37–48	Demonstrates reflective learning in a wide range of routine activities and covering the entire scope of practice	Actively seeks relevant clinical information and adapts knowledge appropriately to new findings as they emerge, mindful of conveying an appropriate level of certainty	Takes on roles and increasing levels of responsibility within teams and adapts accordingly
49–60	Demonstrates reflective learning with particular focus on complex and difficult situations and cases Is comfortable and experienced with personal approach to reflective practice as a standard tool in lifelong learning	Can apply and adapt knowledge to dynamic clinical situations and when under pressure with support from senior colleagues as appropriate	Routinely demonstrates ability to adapt and work effectively with different teams

Specialty CiPs
CiP 8: Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Understanding of the structure, resources and legislation surrounding laboratory practice	**Awareness of scientific and managerial developments that may affect the organisation and delivery of pathology services**	**Writing a business case and drawing upon the expertise and opinions of others in this process**	**Understanding of method validation**	**Using internal quality control and external quality assurance to maintain and enhance quality**
31–36	Can explain standard structure of histopathology services, mindful of regional and local variations	Can describe current developments in histopathology and their effects on organisation and delivery of services	Understands the types and contexts of business cases commonly prepared in histopathology	Applies ICP-derived learning to a histopathology context	Describes the value of internal and external quality control within histopathology
37–48	Can appraise and anticipate advantages and disadvantages of different laboratory and mortuary structures.	Can summarise new developments in histopathology to relevant stakeholders and suggest how they might affect organisation and service delivery	Can contribute to the writing of a business case, depending on local opportunities	Understands the value of method validation	Contributes to quality control within histopathology
49–60	Can contribute to discussions/consultations around the structure of laboratory and mortuary services	Actively participates in local departmental strategic planning, keeping stakeholders engaged	Contributes to writing or discussion of business cases in the department with stakeholders	Understands the value of method validation	Contributes to quality control within forensic histopathology

CiP 9: Able to use laboratory and other services effectively in the investigation, diagnosis, and management of patients, relatives, and the deceased.

	Descriptor: Demonstrates or practises appropriate:			
Time (FTE months of training)	**Understanding of healthcare IT and laboratory information management systems and other healthcare IT systems, including associated legislation**	**Communication with specialty services**	**Interpretation of reports from related clinical disciplines in the light of pathology findings, mindful of associated pitfalls**	**Reasoning behind investigational and diagnostic advice given to clinicians, laboratory staff, legal professionals and laypeople**
31–36	Can use effectively the laboratory information management system and other local hospital IT systems Is aware of the legislation regarding data handling and information governance	Can liaise with other diagnostic services to request investigations relevant to diagnosis	Demonstrates an understanding of reports from disciplines related to histopathology.	Gains a good basic working knowledge of the specialist investigations/reports which might be valuable in common case scenarios
37–48	Able to support junior trainees and visiting trainees to the local department	Can liaise effectively with colleagues from other disciplines and request further investigations if needed	Able to integrate specialist results/reports into their own	Demonstrates knowledge of the rationale and evidence behind additional tests requested
49–60	Demonstrates growth compared to previous year	Can critically appraise and justify the use of additional testing/ancillary investigations with colleagues	Can discuss with peers and seniors the value, evidence base and pitfalls of interpretation for additional investigations in complex scenarios	Presents reasoning for additional tests and their interpretation coherently to peers and lay representatives

CiP 10: Able to manage and contribute to a multi-disciplinary team effectively.

	Descriptor: Demonstrates or practises appropriate:				
Time (FTE months of training)	**Management and teamworking skills to effectively manage complex, dynamic situations**	**Continuity and coordination of patient care through the appropriate transfer of information**	**Timely and accurate sharing of information with the clinical team responsible for the care of the patient**	**Working with outside agencies**	**Integration of clinical and pathological findings to advise an MDT and provide prognostic information**
31–36	Able to prioritise cases and work with colleagues for timely turnaround of cases	Demonstrates effective handover of pertinent information Presents cases coherently at clinicopathological meetings Writes coherent referral letters for cases requiring external opinion	Applies ICP-derived learning to a histopathology context.	Applies ICP-derived learning to a histopathology context	Provides and presents appropriate clinicopathological correlation and prognostic information for routine cases
37–48	Works effectively as part of the specialty team and proactively manages routine cases	Able to hand over more complex cases Develops consultation and presentation skills at multidisciplinary team meetings, courses and conferences	Conveys diagnostic information to the clinical team from routine cases and from intraoperative cases	Can routinely work with appropriate external organisations as opportunity arises and reflects on this experience	Recognises when new information is received from the MDT that may lead to a change in the clinicopathological correlation. and discusses this with the relevant consultant so that an addendum may be issued.
48–60	Gains a good basic working knowledge of the specialist investigations/reports which might be valuable in common case scenarios	Can source relevant information for cases and share the information for diagnostic interpretation and prognosis	Is situationally aware of the need to convey information to clinical teams in a timely manner and prioritise cases	Reflects on and critically appraises engagement with external agencies	Recognises when further information is required from the MDT to support clinicopathological correlation and resultant prognosis

CiP 11: Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others (a)

Time (FTE months of training)	**Descriptor: Demonstrates or practises skills to provide accurate diagnostic, prognostic and therapeutic detail, as appropriate:**				
	Management of a macroscopic specimen	**Microscopy skills (including additional techniques)**	**Performing a post-mortem examination** *For those opting to continue PM training, with additional three months training time*	**Interpreting all macroscopic and microscopic findings identified from the post-mortem**	**Portraying an appropriate amount of certainty around a pathological diagnosis**
31–36	Applies ICP-derived learning to a histopathology context	Applies ICP skills to routine and complex specimens Can give basic clinicopathological correlation for reported cases	Can perform autopsies independently in simple cases Observes complex autopsies	Can write coherent autopsy reports including positive and negative macroscopic findings, histology and additional investigations	Seeks opportunities to view and discuss cases prior to meetings Can present cases under supervision at MDTs
37–48	Is increasingly confident at dissecting specimens independently Assists more junior peers with routine specimens	Can report progressively more complex cases and give appropriate pathological opinion, which can be justified with an evidence-based approach	Can undertake a whole autopsy reliably and independently, in increasingly complex cases Interprets related clinical results Reflects on experiences at coroner's court (or equivalent)	Can provide a full clinicopathological correlation Can undertake more complex cases and discusses all cases with supervising consultant	Appreciates the subtleties of reporting cases and how to deliver appropriate information to colleagues Can deliver the appropriate degree of diagnostic certainty in routine cases
49–60	Demonstrates growth compared to previous year in preparation for independent practice	Can report most routine cases independently	Can present post-mortem findings to wider clinical and medico-legal teams and the coroner or equivalent. Can discuss findings with next of kin and reflect on this experience	Can interpret macroscopic and microscopic findings in more complex autopsies and integrate those findings with the clinical context, reaching sensible conclusions about the significance of the findings	Is able to verbalise and write effectively the degree of certainty in a given diagnosis and explain reasoning

				Can actively reflect on cases and seek appropriate advice	

CiP 11: Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others (b)

Time (FTE months of training)	**Descriptor: Demonstrates or practises skills to provide accurate diagnostic, prognostic and therapeutic detail, as appropriate:**				
	Providing a timely accurate written or verbal report in clear and appropriate language	**Using appropriate published guidelines and diagnostic coding**	**Providing a provisional verbal report urgently and documenting appropriately**	**Counselling next of kin and peer health professionals on the outcomes of pathology investigations**	**Can report independently**
31–36	Can give clear verbal and written reports for basic and routine cases to supervising peers and consultants	Routinely uses and seeks out appropriate guidelines relevant to the range of cases seen	Works with supervisors to develop knowledge and skills necessary to report very urgent cases	Presents straightforward cases at clinicopathological meetings under supervision	Routinely works up cases and writes structured reports for routine cases in histopathology in preparation for independent reporting
37–48	Can provide detailed written and verbal reports for complex cases in a timely manner Has a low threshold for seeking advice	Demonstrates in-depth knowledge of relevant evidence-based guidance	Can provide a provisional verbal report for urgent cases to clinical colleagues under consultant supervision	Able to present complex cases having a low threshold for seeking advice	Starts independently reporting low complexity cases
49–60	Develops skills further for independent practice	Is able to work with clinical colleagues in the multidisciplinary setting to apply relevant data, gathering protocols for national reviews and audits	Can provide a verbal report for some urgent cases with appropriate guidance	Able to report and present most cases independently but has a low threshold for seeking advice if required Attend and give evidence at inquest, if appropriate	Increases independent reporting repertoire and confidence

Appendix C: Histopathology entrustment levels

	FTE year of training	1	2	3		4	5
CiP	**Descriptor**	ICPT	ICPT	ICPT	HST	HST	HST
Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care	Understanding of the structure, resources and legislation surrounding laboratory practice	1	2		3	3	4
	Awareness of scientific and managerial developments that may affect the organisation and delivery of pathology services	1	2		3	3	4
	Writing a business case and drawing upon the expertise and opinions of others in this process	1	1		2	3	4
	Understanding of method validation	1	1		2	3	4
	Using internal quality control and external quality assurance to maintain and enhance quality	1	2		3	3	4
Able to use laboratory and other services effectively in the investigation, diagnosis, and management of patients, relatives, and the deceased	Understanding of healthcare IT and laboratory information management systems and other healthcare IT systems, including associated legislation	1	2		3	3	4
	Communication with specialty services	1	2		3	3	4
	Interpretation of reports from related clinical disciplines in the light of pathology findings, mindful of associated pitfalls	1	2		2	3	4

	Reasoning behind investigational and diagnostic advice given to clinicians, laboratory staff, legal professionals and laypeople	1	2		2	3	4
Able to manage and contribute to a multidisciplinary team effectively	Management and team working skills to effectively manage complex, dynamic situations	1	2		2	3	4
	Continuity and coordination of patient care through the appropriate transfer of information	1	2		3	3	4
	Timely and accurate sharing of information with the clinical team responsible for the care of the patient	1	2		3	3	4
	Working with outside agencies	1	2		2	3	4
	Integration of clinical and pathological findings to advise an MDT and provide prognostic information	1	2		3	3	4
Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others	Management of a macroscopic surgical specimen	1	2		3	3	4
	Microscopy skills (including additional techniques)	1	2		3	3	4
	Performing a post-mortem examination	1	2		2	3	4
	Interpreting all macroscopic and microscopic findings identified from the post-mortem	1	2		2	3	4
	Portraying an appropriate amount of certainty around a pathological diagnosis	1	2		3	3	4
	Providing a timely accurate written or verbal report in clear and appropriate language	1	2		2	3	4
	Using appropriate published guidelines and diagnostic coding	1	2		3	3	4

	Providing a provisional verbal report urgently and documenting appropriately	1	1		2	3	4
	Counselling next of kin and peer health professionals on the outcomes of pathology investigations	1	2		2	3	4
	Can report independently	1	1		2	3	4

Appendix D: Histopathology assessment blueprint

		Method of assessment									
CiP	Descriptor	CbD	DOPs	ECE	MSF	AOP	IR	FRCPath Pt 1	FRCPath Pt 2	CHAT	CHCCT
Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care	Awareness of and adherence to GMC professional requirements							✓	✓	✓	✓
	Recognition of public health issues including population health, social determinants of health and global health perspectives	✓	✓					✓	✓	✓	
	Promotion of an open and transparent culture				✓						
	Engagement in career planning										
	Ability to deal with complexity and uncertainty	✓	✓					✓	✓	✓	✓
Able to work within ethical and legal frameworks across all aspects of clinical practice	Awareness of national legislation and legal responsibilities, including safeguarding vulnerable groups							✓	✓	✓	
	Behaviour in accordance with ethical and legal requirements		✓		✓				✓	✓	✓
	Ability to offer an apology or explanation	✓									

	Ability to advise clinicians and other health professionals on medico-legal issues; cognisant of national variations in practice	✓							✓	✓	
Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviours and judgement	Communication with patients, next of kin, colleagues and members of the multidisciplinary team as appropriate				✓						
	Management of barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues, cultural issues)				✓						
	Verbal and nonverbal consultation skills		✓		✓				✓	✓	✓
	Management and teamworking skills including influencing, negotiating, re-assessing priorities, and complex, dynamic situations				✓						
Maintains patient safety at the forefront of clinical working. Can utilise quality improvement activity realistically within the constraints of the role	Behaviour relating to patient safety and quality of care		✓						✓	✓	✓
	Contribution and delivery of quality improvement		✓								
	Human factors principles and practice at individual, team, organisational and system levels	✓									
	Non-technical skills and crisis resource management				✓						

	Working within limit of personal competence		✓								
Able to contribute to and support research	Principles of research and academic writing										
	Ability to follow guidelines relating to legal and ethical frameworks in the UK	✓							✓	✓	✓
	Support of health service research										
	Awareness of sources of finance to support research	✓									
	Critical appraisal of the literature		✓						✓	✓	
Behaves as an educator in the context of the role and promotes educational culture	Teaching, training and supervision to peers, medical students, junior doctors, laboratory staff and others		✓								
	Effective feedback to colleagues		✓								
Able to self-appraise, learn and adapt	Reflective learning strategies to aid learning and improve performance										
	Application of knowledge to adapt to new clinical situations	✓						✓	✓	✓	
	Effective working with different teams, departments, professional groups and external agencies				✓						

Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care	Understanding of the structure, resources and legislation surrounding laboratory practice	✓	✓								✓
	Awareness of scientific and managerial developments that may affect the organisation and delivery of pathology services	✓	✓								
	Writing a business case and drawing upon the expertise and opinions of others in this process		✓								
	Understanding of method validation	✓									
	Using internal quality control and external quality assurance to maintain and enhance quality		✓								
Able to use laboratory and other services effectively in the investigation, diagnosis, and management of patients, relatives, and the deceased	Understanding of healthcare IT and laboratory information management systems and other healthcare IT systems, including associated legislation	✓									
	Communication with specialty services								✓	✓	
	Interpretation of reports from related clinical disciplines in the light of pathology findings, mindful of associated pitfalls		✓						✓	✓	✓
	Reasoning behind investigational and diagnostic advice given to clinicians, laboratory staff, legal professionals and laypeople		✓					✓	✓	✓	✓

Able to manage and contribute to a multidisciplinary team effectively	Management and teamworking skills to effectively manage complex, dynamic situations				✓				✓	✓	
	Continuity and coordination of patient care through the appropriate transfer of information		✓								
	Timely and accurate sharing of information with the clinical team responsible for the care of the patient	✓									
	Working with outside agencies		✓	✓	✓				✓		
	Integration of clinical and pathological findings to advise an MDT and provide prognostic information	✓						✓	✓	✓	✓
Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others	Management of a macroscopic surgical specimen		✓						✓	✓	
	Microscopy skills (including additional techniques)		✓					✓	✓	✓	✓
	Performing a post-mortem examination		✓					✓	✓	✓	
	Interpreting all macroscopic and microscopic findings identified from the post-mortem		✓					✓	✓	✓	
	Portraying an appropriate amount of certainty around a pathological diagnosis	✓						✓	✓	✓	
	Providing a timely accurate written or verbal report in clear and appropriate language				✓			✓	✓	✓	✓

	Using appropriate published guidelines and diagnostic coding		✓					✓	✓	✓	✓
	Providing a provisional verbal report urgently and documenting appropriately		✓					✓	✓	✓	
	Counselling next of kin and peer health professionals on the outcomes of pathology investigations				✓				✓		
	Can report independently		✓						✓	✓	✓

KEY

CbD	Case-based discussion
DOPS	Direct observation of practical skills
ECE	Evaluation of clinical/management events
MSF	Multi-source feedback
AOP	Assessment of performance in the workplace
IR	Independent reporting
FRCPath	Fellowship examination of the Royal College of Pathologists

Appendix E: Directed supervised learning events by year of training

The following are lists of supervised learning events (SLEs), from which appropriate examples should be selected to make up the 'directed' component of assessments during each stage of training. Each item in the lists is in fact a group of possible scenarios to be used, and each group may be used more than once as long as exact circumstances are not duplicated. Additionally, it can be seen that the lists are similar for each year, but increase in complexity and/or depth as a trainee progresses through the years of training.

The numbers indicated below are an indicative minimum number to be carried out. Trainees are encouraged to undertake more and supervisors may require additional SLEs if concerns are identified. SLEs should be undertaken throughout the training year by a range of assessors.

ST1 (SLE)(x24 per year or pro-rata)
Direct observation of practical skills (DOPS) (x6):

- set up and use microscope
- autopsy
- cut-up
- microscopy
- cytology.

Evaluation of clinical events (ECEs) (x6):

- histology/cytology
- autopsy
- audit
- poster presentation
- teaching event for medical students or demonstration of interesting case to other trainees
- referral letter.

Case-based discussions (CbDs) (x6):

- autopsy
- histology/non-cervical cytology
- cytology
- molecular pathology.

Assessment of performance (AoP) (x6)

ST2 (x24 per year or pro-rata)
Direct observation of practical skills (DOPS) (x6):

- autopsy
- cut-up
- microscopy
- cytology
- photography.

Evaluation of clinical events (ECEs) (x6):

- histology/cytology
- autopsy
- audit
- poster presentation

- teaching event for medical students or demonstration of interesting case to other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- autopsy
- histology/non-cervical cytology
- cytology
- molecular pathology.

Assessment of performance (AoP) (x6)

ST3 (x24 per year or pro-rata)
Direct observation of practical skills (DOPS) (x6):
- cut-up
- microscopy
- cytology
- photography.

Evaluation of clinical events (ECEs) (x6):
- histology/cytology
- audit
- poster presentation
- teaching event for medical students or other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- histology/non-cervical cytology
- management
- molecular pathology.

Assessment of performance (AoP) (x6)

ST4 (x24 per year or pro-rata)
Direct observation of practical skills (DOPS) (x6):
- cut-up
- microscopy
- cytology
- photography.

Evaluation of clinical events (ECEs) (x6):
- histology/cytology
- audit
- poster presentation
- teaching event for medical students or other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- histology/non-cervical cytology
- management

- molecular pathology.

Assessment of performance (AoP) (x6)

ST5 (x24 per year or pro-rata)

Evaluation of clinical events (ECEs) (x6):
- audit
- poster or oral presentation
- teaching event for medical students or other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- histology/non-cervical cytology
- management
- molecular pathology.

Direct observation of practical skills (DOPS) (x6):
- cut-up
- microscopy
- cytology
- photography.

Assessment of performance (AoP) (x6)